NRC NEWS

U.S. NUCLEAR REGULATORY COMMISSION
801 Warrenville Road
Lisle IL 60532
Web Site: http://www.nrc.gov E-mail: opa3@nrc.gov

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CONTACT: Jan Strasma (630) 829-9663
Viktoria Mitlyng (630) 829-9662

NRC TO BEGIN SPECIAL INSPECTION OF DAVIS-BESSE REACTOR TEST

The Nuclear Regulatory Commission will conduct a special inspection at the Davis-Besse Nuclear Power Plant to monitor a seven-day test of the plant's reactor cooling system. The plant, operated by FirstEnergy Nuclear Operating Company, is near Oak Harbor, Ohio.

The reactor will not be started up for the test. Heat generated by the cooling system pumps will be sufficient to raise the pressure in the reactor and associated piping to approximately 2155 pounds per square inch (psi) -- the normal operating pressure – and approximately 530 degrees Fahrenheit, which is near the normal operating temperature.

Davis-Besse has been shut down since February of last year. After the shutdown, workers found a corrosion-caused cavity in the reactor vessel head, and the plant has remained shut down for repairs, inspections, and modifications. The plant may not resume operations without NRC authorization.

Normally a nuclear plant is required to conduct a 4-to-6 hour test of the reactor cooling system following an outage, but FirstEnergy plans a seven-day test to provide added assurance that the reactor cooling system is leaktight.

FirstEnergy will also use the test to assess its position that there is no leakage from the bottom of the reactor vessel. There are 52 tubes which pass through the bottom wall of the reactor vessel to carry reactor monitoring instrumentation. During an inspection of the reactor bottom last year, FirstEnergy identified chemical staining on the surface of the reactor vessel around the tubes.

The utility determined that the source of the staining was leakage from the refueling area during refueling or runoff from cleaning activities for the reactor vessel head. An earlier test at a lower reactor pressure (250 psi) showed no evidence of leakage from the bottom of the reactor vessel.

The NRC inspection team will independently review the utility's conduct of the test and the data collected, and evaluate the test results. In addition, the NRC resident inspectors assigned to the plant and a plant operations specialist from the Region III office will monitor the performance of the utility's operations staff during the test.

On September 5 the NRC staff issued a license amendment to FirstEnergy to permit the temperature and pressure conditions, known as “Mode 4 - hot shutdown” and “Mode 3 - hot standby,” necessary to perform the test without correcting a potential problem with two high pressure emergency pumps. The utility previously found that the pumps might malfunction under certain conditions during a reactor accident.

The NRC review of the license amendment found the utility can safely bring the plant to the temperature and pressure conditions needed for the test. Since the reactor will not be started up for the test and since it has not operated for 18 months, the NRC review found that the pumps would not be exposed to the potential accident conditions that might cause a malfunction.

After the test is completed, FirstEnergy plans to modify the pumps to eliminate the potential problem. The pump problem must be resolved before the plant is permitted to resume operations.

The NRC inspection team will issue a report about 30 days after the completion of the inspection. The report will be available on the NRC’s Davis-Besse web site under “News and Correspondence.” The NRC’s license amendment and the safety evaluation supporting the amendment will also be available on the web site.

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